What is claimed is:

1. A method of manufacturing a package substrate for electrolytic leadless plating, comprising the following steps of:

(a) copper plating a whole surface of a base substrate having a plurality of through-holes defined in a copper clad laminate;

(b) laminating a first dry film on the copper plated through-holes, followed by developing the laminated dry film;

(c) etching a copper foil not covered with the first dry film so that an upper portion and a lower portion of the base substrate are patterned;

(d) stripping the first dry film, followed by coating, exposing and developing a second dry film on the base substrate so that only the upper portion of the base substrate to be subjected to electrolytic Au plating is exposed;

(e) grounding an electrolytic Au plating terminal to a solder ball pad, followed by Ni-Au plating a wire bonding pad through the through-holes;

(f) removing the second dry film by use of a stripping solution;

(g) coating, exposing and developing a third dry film

on the substrate to pattern the solder ball pad;

(h) removing a copper foil not covered with the third dry film by use of an etching solution, to form circuit patterns;

(i) removing the third dry film by use of a stripping solution;

(j) applying a solder resist onto a predetermined portion of the substrate, which is exposed, developed and then dried; and

(k) coating an organic solderability preservative on the solder ball pad for metal finishing of the solder ball pad.

2. The method as defined in claim 1, wherein the first dry film and the third dry film are used as etching resists.

3. The method as defined in claim 1, wherein the second dry film is used as an electrolytic Au plating resist.

4. The method as defined in claim 1, wherein an Au plated layer following the electrolytic Au plating is 0.5-1.5 μm thick.

5. The method as defined in claim 1, wherein the upper portion to be subjected to the Au plating is a wire bonding

pad.

6. A method of manufacturing a package substrate for electrolytic leadless plating, comprising the following steps of:

(a) copper plating a whole surface of a base substrate having a plurality of through-holes defined in a copper clad laminate;

(b) laminating a first dry film on the copper plated through-holes, followed by developing the laminated dry film;

(c) etching a copper foil not covered with the first dry film so that an upper portion and a lower portion of the base substrate are patterned;

(d) stripping the first dry film, followed by coating, exposing and developing a second dry film on the base substrate so that only the upper portion of the base substrate to be subjected to electrolytic Au plating is exposed;

(e) grounding an electrolytic Au plating terminal to a solder ball pad, followed by Ni-Au plating a wire bonding pad through the through-holes;

(f) removing the second dry film by use of a stripping solution;

(g) coating, exposing and developing a third dry film

on the substrate to pattern the solder ball pad;

(h) removing a copper foil not covered with the third dry film by use of an etching solution, to form circuit patterns;

(i) removing the third dry film by use of a stripping solution;

(j) applying a solder resist onto a predetermined portion of the substrate, which is exposed, developed and then dried;

(k) coating, exposing and developing a fourth dry film on the base substrate so that only the solder ball pad to be subjected to electroless Au plating is exposed;

(l) subjecting the solder ball pad to electroless Au plating; and

(m) removing the fourth dry film by use of a stripping solution.

7. The method as defined in claim 6, wherein the first dry film and the third dry film are used as etching resists.

8. The method as defined in claim 6, wherein the second dry film is used as an electrolytic Au plating resist.

9. The method as defined in claim 6, wherein the

fourth dry film is used as an electroless Au plating resist.

10. The method as defined in claim 6, wherein an Au plated layer following the electrolytic Au plating is 0.5-1.5 μm thick.

11. The method as defined in claim 6, wherein an Au plated layer following the electroless Au plating is 0.03-0.25 μm thick.

12. A method of manufacturing a package substrate for electrolytic leadless plating, comprising the following steps of:

(a) copper plating a whole surface of a base substrate having a plurality of through-holes defined in a copper clad laminate;

(b) laminating a first dry film on the copper plated through-holes, followed by developing the laminated dry film;

(c) removing a copper foil not covered with the first dry film by use of an etching solution, to form circuit patterns;

(d) stripping the first dry film by use of a stripping solution;

(e) subjecting the surface of the base substrate and

the inner wall of each through-hole to electroless Cu plating;

(f) coating, exposing and developing a second dry film on the base substrate so that only an upper portion of the base substrate to be subjected to electrolytic Au plating is exposed;

(g) removing an electroless copper foil not covered with the second dry film by use of an etching solution;

(h) subjecting a wire bonding pad to electrolytic Au plating by using the electroless copper foil plated on the base substrate as a plating lead line;

(i) removing the second dry film by use of a stripping solution;

(j) removing the electroless copper foil plated on the base substrate by use of an etching solution;

(k) applying a solder resist onto a predetermined portion of the substrate, which is exposed, developed and then dried; and

(l) coating an organic solderability prèservative on the solder ball pad for metal finishing of the solder ball pad.

13. The method as defined in claim 12, wherein the above copper plating step (a) is performed by electroless

copper plating and then electrolytic copper plating of the surface of the base substrate and the inner walls of the through-holes.

14. The method as defined in claim 12, wherein a Cu plated layer following the electroless Cu plating of the above step (e) is 0.3-0.5 μm thick.

15. The method as defined in claim 12, wherein an Au plated layer following the electrolytic Au plating is 0.5-1.5 μm thick.

16. The method as defined in claim 12, wherein the etching is performed through flash etching.

17. The method as defined in claim 12, wherein the first dry film is used as an etching resist.

18. The method as defined in claim 12, wherein the second dry film is used as an electrolytic Au plating resist.

19. A package substrate for electrolytic leadless plating, comprising:

(a) a base substrate having a plurality of through-holes;

(b) a first plated layer formed at a predetermined portion on the base substrate and on an inner wall of each through-hole, which is subjected to copper plating;

(c) a circuit pattern formed on an upper portion and a lower portion of the base substrate by etching a part of the first plated layer;

(d) a wire bonding pad formed on the etched first plated layer through electrolytic leadless Au plating;

(e) a solder resist applied onto portions except for the wire bonding pad; and

(f) a solder ball pad formed at a predetermined position of the lower portion of the base substrate.

20. The package substrate as defined in claim 19, wherein the solder ball pad is subjected to OSP metal finishing or electroless Au plating to form a thinly plated Au.

21. The package substrate as defined in claim 19, further comprising a second plated layer formed at a predetermined portion on the base substrate through electroless plating, said second plated layer functioning as a plating lead line of the wire bonding pad formed through

the electrolytic Au plating.